

**Report on the 1st Meeting of the GRB/GRRF Informal Group on Special Tyre Definitions, Geneva, 23 July 2009**

**Present:**

Contracting Parties: - European Commission (chairing), Denmark, France, Germany, Italy, Japan, Norway, Russian Federation, Switzerland, UK.

NGO's:- , ETRTO, ETO, OICA, TUV, BIPAVÉR.

A summary of the main points discussed is given below in Agenda item order (see document STD-01-01) . All documents referred to are available on the website <http://www.unece.org/trans/main/wp29/wp29wgs/wp29grrf/grrf-std1.html>

**1. Introductory statement by the European Commission;**

The Chairman outlined the purpose of the group which had been agreed by WP29 at its March session. The main objectives were as follows:

- a) to make proposals for the inclusion of new rolling resistance requirements into regulation 117 (taking into account the introduction of such requirements in the new European Community Regulation on General Vehicle Safety)
- b) to make proposals for a second stage of rolling noise requirements in Regulation 117 (again taking into account the introduction of such requirements in the new European Community Regulation on General Vehicle Safety)
- c) to examine the definitions of specific tyre categories, particularly those which benefitted from additional allowances with regard to the requirements proposed under a) and b) above.

**2. Overview of the tyres' requirements included in the EC Regulation on the General Safety of Motor Vehicles;**

A presentation on the new General Safety Regulation was given by the Commission (document STD-01-03). This explained the background and the reason why it was necessary to revise Regulation 117 and, in particular, develop more robust definitions for various tyre categories. It emphasised that the new regulation would apply to new types of tyre (with respect to the new noise requirements and the stage one rolling resistance requirements) in November 2012. This meant that, if these requirements were to be implemented by means of Regulation 117, the necessary changes to Regulation 117 would need to be finalised to meet the same timescale. Therefore, if the normal two year introduction period ( for new tyre types) was to be respected, then ideally the new proposals would need to be agreed at the March 2010 WP29 session. Agreement at the June 2010 WP29 session might be more realistic, but this would delay the entry into force date of the revised regulation to

the beginning of 2011 which would reduce the lead time for manufacturers if the November 2012 date (for new types) was to be maintained.

### 3. Discussion on the Various Tyre Definitions:

Discussion was based on the proposals in the ETRTO document STD-01-02

#### **a) Reinforced or extra load tyre;**

The document proposed the use of ISO 4000 as the reference for comparison of standard tyre loadings with 'extra' loadings. Germany made the general comment that any ISO standards proposed for inclusion into UNECE Regulations should be made available, at least as presentations, to the group before any decisions could be made. Since it was necessary to indicate the specific level of the standard in the Regulation, there was some concern over whether there would be a delay in introducing a new type of tyre if that tyre type was not included in the latest version of the standard. The UK proposed an alternative method of defining 'extra load' whereby the minimum threshold for an extra load tyre would be a set number of index points above the standard load (which would itself be determined by a formula). This would mean that it was not necessary to wait for a particular new tyre specification to be included in the ISO standard. ETRTO said it would consider the issue further and come back with a revised proposal.

#### **b) Snow tyre;**

ETRTO explained that standards for defining snow tyres in categories C1 and C2 were currently under development, and a draft specification was included in Annex 7 of the proposed revision to Regulation 117 ( see document STD-01-04). For C3 tyres, development work on a test standard was not expected to be completed until the beginning of 2012. The Chairman underlined the importance of having a robust test standard before allowing concessions for such tyres under the General Safety Regulation. If this was to be achieved, a further modification to include a test for C3 snow tyres in Regulation 117 would need to be agreed by the February 2012 GRB meeting at the latest.

There was a discussion on the threshold value for distinguishing a snow tyre from a normal tyre under the proposed test procedure. Since the test method would include the option of using one of two standard reference test tyres (SRRT); one 14 inch (or code 14) and one 16 inch (or code 16), a candidate tyre would need to have a performance better than the reference tyre by a fixed percentage in order to qualify as a snow tyre. ETRTO proposed that this percentage should be 7% for the code 14 tyre and 15% for the code 16 tyre. The reason for this large difference was because the code 14 SRRT was already a winter tyre, but the code 16 SRRT was a summer tyre so in this case the difference in snow performance would be greater.

Both the Commission and Denmark expressed surprise at the low percentage threshold value. Denmark suggested that, according to consumer reports, a snow tyre might have a snow traction performance level three times that of a standard tyre. It was agreed that ETRTO should justify its proposed threshold values by providing data on the snow performance of current tyres (without indicating the particular manufacturers)

### **c) Traction tyre;**

ETRTO introduced the proposed traction tyre definition, which was based on design characteristics. BIPAVER asked whether a small modification ( such as changing from an 'open shoulder' design to a 'closed shoulder' design) could shift a tyre from one category to another. The Commission , Switzerland and the UK expressed a preference for a performance-based requirement rather than a design requirement, and Russia noted that a digital (quantifiable) method would be preferred. ETRTO said that traction performance would be difficult to define since there was no standardised test method. France asked if the industry already had internal traction performance standards that could be used to distinguish traction tyres from standard tyres. ETRTO confirmed that internal testing was done, usually to customer specifications, and that tyre manufactures would not mark 'TRACTION' on a tyre if it did not have enhanced traction properties. It was agreed that ETRTO would investigate whether it was possible to use performance testing (even if using internal non-standardised methods) to support the nomination of a particular tyre type as a 'traction' tyre.

### **d) Special use tyre**

This definition was agreed, except that UK and Denmark supported the use of 'and' instead of 'or' so that both the criteria on tread depth and for the void-to-fill ratio would need to be met in order to classify a tyre as 'special use' . ETRTO would discuss internally to see if this would cause problems.

### **e) Professional off-road tyre**

The only discussion on this item concerned the maximum speed rating. The Commission felt that a rating of P (150km/h ) for C1 and C2 was too high for this category of tyre but UK and Germany considered that a speed of 150km/h or even higher was necessary for some off-road applications (such as military and mountain rescue vehicles) . Denmark suggested that linking the speed rating to the maximum speed of the vehicle was not helpful in the case of C3 tyres since the speed index was dependant on the load capacity index.

Both Germany and Denmark supported deletion of the requirement to fit a label to the dashboard, since Regulation 117 covered only tyres as components and did not cover vehicle requirements.

### **f) M+S tyre;**

ETRTO explained that it wished to maintain the M+S marking for customer information even though it was not linked to any of the new requirements. BIPAVER asked why it should be necessary to include this requirement in the Regulation. UK suggested that the M+S marking should be maintained as it formed part of the definition for Traction Tyre within the General Safety Regulation. It was eventually agreed that it was necessary to keep the M+S markings while the stage 1 noise limits were still being applied, since the M+S marking was still linked to an additional allowance for stage 1.

It was agreed that ETRTO would supply an updated version of this document for the next meeting, taking into account the comments expressed during the meeting.

#### **4. Rolling resistance test method;**

A presentation was given by ETRTO (STD-01-05) to outline the rationale behind the proposals for rolling resistance testing, included in Annex 6 of Document STD-01-04. The proposal is based on the new ISO standard 28580, which was developed in order to eliminate some of the variations encountered in the old test standard (ISO 18164) which could cause variations of up to 20%. It was necessary to improve the consistency of testing, not only for the purposes of type-approval, but also because of the introduction of tyre labelling schemes for rolling resistance which have narrow performance bands. ISO 28580 specifies four test methods: the deceleration method, the torque method, the force method and the power method. ETRTO explained that all these methods are equivalent and that the reason for differences observed between test laboratories is the fact that different test machines are used that need to be aligned.

. ETRTO proposed that a 'reference test laboratory' should be established which would set the reference standard against which the test machines of all other test laboratories would be compared. Rolling Resistance test data from all RR test machines complying to ISO 28580 would be adjusted in accordance with a calibration curve which represented the difference between the machines used for type-approval and the reference laboratory machine. This would ensure consistency between one approval laboratory, or machine, and another.

France, Germany and the UK all opposed the idea of a reference test laboratory. France suggested that consistency could be ensured by having a series of 'Round-Robin' tests between the various test labs, which could result in an average value which could be considered as the 'virtual' reference for calibration of the individual approval laboratories. Germany, UK and Russia considered that the problem of inconsistency could be addressed by limiting the number of test methods from four to one or two. UK supported a single method. Germany supported adoption of the two test methods which gave the closest results. Russia reported that its research suggested to implement a new, alternative test method in addition to the existing four test methods. This new test method is named deceleration method based on time-distance measuring.

ETRTO considered that reducing the number of test methods would not resolve the problem since it was the variation between test laboratories which was the main source of inconsistency. However ETRTO would consider the comments made during the meeting and will provide additional data to further explain the ISO method at the next meeting .

#### **5. Rolling resistance limit values;**

#### **6. Rolling noise limit values.**

Items 5 and 6 were discussed in the general context of document STD-01-04 which was an ETRTO proposal for a major revision to UNECE Regulation 117 that incorporated all of the issues under discussion by the group. There were a number of minor editorial changes made to the document, but the main points of discussion were as follows:

#### **Type definition.**

The ETRTO document proposed that a change in tread pattern (para 2.1(g)) should not change the tyre type with respect to approvals for rolling resistance. Some delegates were not convinced that changing the tread pattern would not affect rolling resistance. Norway suggested that a change in tread compound should trigger a change in tyre type. ETRTO were asked to put the new wording at the end of the paragraph into square brackets or (preferably) to delete it and, by next meeting, to provide data to justify keeping the wording.

### **Reference to ISO standards.**

Germany asked for all references to ISO standards to include the relevant date.

### **Markings for Special Use tyres.**

Germany asked that the marking 'Special Use' should be required for such tyres rather than the various markings proposed by ETRTO (and currently used) such as ML (Mining and Logging) ET (extra tread) or MPT (multi-purpose truck) . ETRTO said that the current markings were sufficient to identify a 'Special Use' tyre and were of more use to the purchaser. However, they would see if the 'Special Use' definition could be amended to clarify the link between these three sub-categories and the 'Special use ' definition .

### **Rolling Noise Limit Values.**

The existing Regulation 117 noise limit values were presented in the tables as 'stage 1' values and the values agreed for the general Safety Regulation were presented as 'stage 2' values . Germany asked why the format for the limit values was different from the format used in the General Safety Regulation. ETRTO replied that the intention had been to keep to the existing Regulation 117 format as far as possible.

### **Rolling resistance limit values**

The Commission reminded the group that the extra 1kg/tonne allowance for the rolling resistance of snow tyres in the General Safety Regulation was only agreed definitely for stage 2. The allowance for snow tyres could not be confirmed for stage 1 until an anomaly in the formatting of the General Safety Regulation had been sorted out, and the result agreed by the Council and Parliament. Therefore the 1kg/tonne allowance for snow tyres for Stage 1 in regulation 117 would need to remain in square brackets for the time being.

### **Transitional Provisions.**

Germany and Switzerland proposed that the wording in 12.2 should be revised such that the 'default ' position was that Contracting Parties would require the new rolling resistance limits and the phase 2 noise limits in accordance with the dates provided, unless they informed the UN Secretary-General to the contrary. It was agreed that ETRTO should redraft paragraph 12 to this effect.

### **NEXT STEPS**

It was agreed that ETRTO would amend its two documents, taking into account the comments received from other delegates, before the next meeting. The second

meeting of the group will take place on the afternoon of 31<sup>st</sup> August and the morning of 1<sup>st</sup> September, just before the next GRB meeting.

**Annex – list of Attendees**

<b>NAME</b>	<b>COUNTRY/ ORGANISATION</b>	<b>E-MAIL ADDRESS</b>
Wolfgang Schneider	European Commission	<a href="mailto:wolfgang.schneider@ec.europa.eu">wolfgang.schneider@ec.europa.eu</a>
Ian Knowles	European Commission	<a href="mailto:ian.knowles@ec.europa.eu">ian.knowles@ec.europa.eu</a>
Reinhard Boenning	ETRTO	<a href="mailto:reinhard.boenning@fr.michelin.com">reinhard.boenning@fr.michelin.com</a>
J.J. Almon	ETRTO	<a href="mailto:jean-jacques.almon@fr.michelin.com">jean-jacques.almon@fr.michelin.com</a>
J.C Noirhomme	ETRTO	<a href="mailto:info@etrto.org">info@etrto.org</a>
Pascal Guillaume	ETRTO	<a href="mailto:pascal.quillaume@goodyear.com">pascal.quillaume@goodyear.com</a>
Stefan Köppen	ETRTO	<a href="mailto:stefan_koppen@goodyear.com">stefan_koppen@goodyear.com</a>
Maurizio Parca	ETRTO	<a href="mailto:maurizio.parca@bridgestone.eu">maurizio.parca@bridgestone.eu</a>
Italo Funaro	ETRTO	<a href="mailto:italo.funaro@bridgestone.eu">italo.funaro@bridgestone.eu</a>
Hans-Rudolf Hein	ETRTO	<a href="mailto:hans-rudolf.hein@bridgestone.eu">hans-rudolf.hein@bridgestone.eu</a>
Luca Rocco	Italian Ministry of Infrastructure and Transport	<a href="mailto:luca.rocco@mit.gov.it">luca.rocco@mit.gov.it</a>
Andrea Pinkerton	ETO	<a href="mailto:andreap@e-t-o.org">andreap@e-t-o.org</a>
Robert Falk	UK Department of Transport	<a href="mailto:robert.falk@dft.gsi.gov.uk">robert.falk@dft.gsi.gov.uk</a>
Christian Theis	BMVBS Germany	<a href="mailto:christian.theis@bmvbs.bund.de">christian.theis@bmvbs.bund.de</a>

Urs Reichart	Federal Environment Agency Germany	<a href="mailto:urs.reichart@uba.de">urs.reichart@uba.de</a>
Serge Ficheux	UTAC France	<a href="mailto:serge.ficheux@utac.com">serge.ficheux@utac.com</a>
Jun Makito	ETRTO (JATMA)	<a href="mailto:makini-j@bridgestone.eu">makini-j@bridgestone.eu</a>
Hiroyuki Nonaka	JASIC (JATMA)	<a href="mailto:nonaka-h@bridgestone.eu">nonaka-h@bridgestone.eu</a>
Hideobu Kubota	JASIC Geneva	<a href="mailto:kubota@jasic.org">kubota@jasic.org</a>
Frank Klempan	OICA Germany	<a href="mailto:frank.klempan@daimler.com">frank.klempan@daimler.com</a>
Dominique Lescail	UTAC France	<a href="mailto:dominique.lescail@utac.com">dominique.lescail@utac.com</a>
Walter Reithmaier	TÜV Süd Automotive	<a href="mailto:walter.reithmaier@tuev-sued.de">walter.reithmaier@tuev-sued.de</a>
Michael Schwämmlein	BIPAVER	<a href="mailto:michael.schwaemmlein@kraiburg.co.at">michael.schwaemmlein@kraiburg.co.at</a>
Jan Boe Kielland	STF	<a href="mailto:jan.kielland@stf.no">jan.kielland@stf.no</a>
Peter Dyrelund Jakobsen	Road Safety Agency Denmark	<a href="mailto:pdy@fstyr.dk">pdy@fstyr.dk</a>
Heinz Berger	Federal Road Office Switzerland	<a href="mailto:heinz.berger@astra.admin.ch">heinz.berger@astra.admin.ch</a>
Vladimir Petrushov	RF expert in GRB/GRRF NAMI Institute	<a href="mailto:petrushov@mtu-net.ru">petrushov@mtu-net.ru</a>